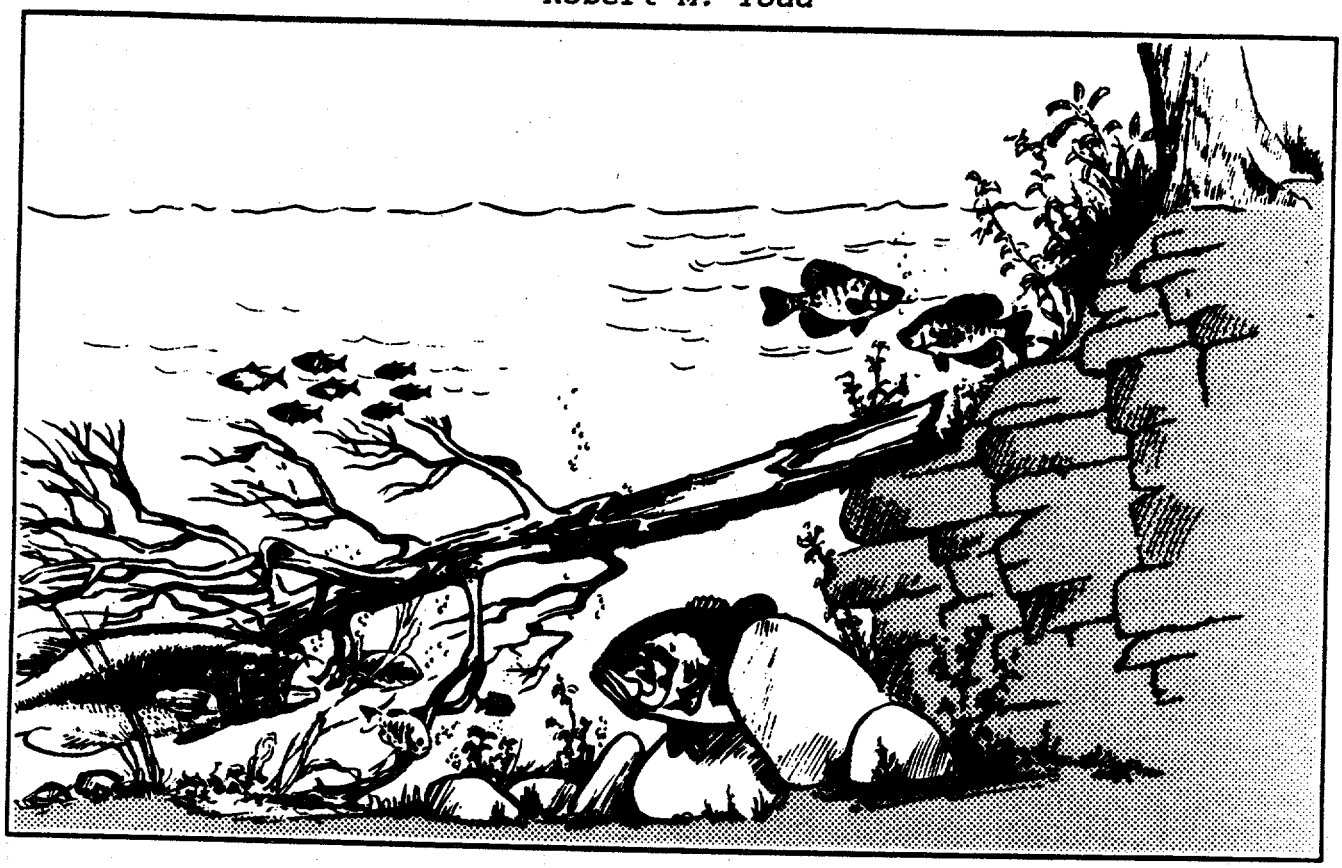
FISHERIES REPORT

NO. 91-1

COMMERCIAL FISHING SURVEY

1989

By
Robert M. Todd



Tennessee Wildlife Resources Agency

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This report addresses Project 7361.

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ABSTRACT

An annual commercial fishing survey form was sent to all 1,805 commercial fishing license holders in January of 1990 to solicit harvest data for 1989. Responses indicated that only 9% of the fishermen considered themselves full-time. Commercial fishermen stated they fished trotlines 50.6% of the time, gill nets 17.3%, hoop nets 15.9%, trammel nets 12.8%, slat baskets 2.1% and snaglines 1.3%. They fished reservoirs 67%, rivers 31%, creeks 1.3% and small lakes 0.7% of the time. Commercial fishermen harvested an estimated 11,411,701 pounds of fish from Tennessee waters. They sold 79.3% to markets, 10.1% directly to the consumer, 1.7% to groceries and 1.5% to restaurants. They kept 6.9% of the harvest for personal use and gave away 0.6%.

COMMERCIAL FISHING

Introduction

Commercial fishing has been a traditional source of income for Tennesseans since the first settlements were established. Prior to the reservoir construction boom which greatly expanded the resource, the Tennessee and Cumberland Rivers were the principal waters fished commercially. Currently, there are 14 reservoirs and 14 major rivers open to some type of commercial fishing. Also, Reelfoot Lake is fished commercially, especially for crappie. Kentucky Reservoir is the principal commercial fishing resource.

The legal commercial fishing gear types in Tennessee are: cast net, fish seine, fyke net, gill net, trammel net, hoop net, slat basket, snagline, trotline and turtle traps. Numerous restrictions on the gear types and the waters open to each vary greatly within the state. A copy of the regulations can be found in Appendix A.

Numerous fish species are harvested commercially. Catfish (blue, channel and flathead) are the most sought after and commercially valuable of all. Paddlefish are very valuable to the fishermen for both the flesh and the roe which is sold as caviar. Buffalo are harvested in large

quantities for its flakey flesh. Carp and suckers are also harvested in great quantities, although price paid per pound is not as high as for the previously mentioned fish. Drum are easily caught with entanglement gear, but the market is very poor for this species. All fish not classified as game fish and the yellow bass may be taken and sold commercially, except fish classified as endangered, threatened or in need of management as proclaimed by TWRC. Also, white and black crappie may be taken and sold commercially from Reelfoot Lake, which has special regulations.

Most of the fish harvested commercially are sold through markets. Some fishermen sell directly to the consumer. Other fishermen sell to restaurants and grocery stores. Many commercial fishing license holders keep fish for themselves and give some to their friends.

Relatively few studies concerning commercial fishing have been conducted in Tennessee when compared with sport fishing. The emphasis in this state has been to estimate harvest. Statewide harvest estimates are available for the years 1954 to 1966 (Hargis, 1968). These estimates were made by wildlife officers interviewing selected commercial fishermen quarterly and expanding the data. These investigations were conducted in cooperation with TVA. Other investigators have attempted to estimate the

commercial harvest for various bodies of water in Tennessee by obtaining data from fish markets (Sample, 1980 and Conder, 1988 and 1989).

Other studies include rough fish removal to improve sportfishing (DeLaney, 1960 and Carroll, et al., 1963), feasibility and harvest potential of a paddlefish fishery on Norris and Watts Bar Reservoirs (Alexander et al., 1985 and Alexander and Peterson, 1982) and commercial gear evaluations (Hargis, 1968 and Hayes, 1980). A recent study by Dr. Timmons, et al. (1986) on Kentucky Reservoir provided much needed data on commercial species. Age and growth, length-weight relationships, size and age structure at harvest, mortality, recruitment and catch per unit of effort for selected gear types were investigated.

The present investigation was designed to estimate the commercial harvest by species and by body of water, estimate the number of full-time and part-time fishermen, identify the gear types used by each group, estimate the number of man-days commercial gear is used, and identify the method of catch disposition for Tennessee. This report is a summary of these investigations.

Methods

In January of 1990, all licensed resident (1,794) and nonresident (11) commercial fishermen (1,805 total) were sent an annual commercial fishing survey form (Appendix B) and a cover letter. The 768 resident commercial fishing helper license holders were not sent a survey form because their license is transferable and the catch should be assigned to the commercial fishing license holder. No nonresident commercial fishing helper licenses were sold in 1989. The survey form requested recall information concerning the gear types used, effort (days fished), waters fished, weight by species harvested and method of disposition of their catch. The cover letter solicited their involvement in the survey and informed them of the legal requirement to provide TWRA the information requested in the survey.

Of the 1,805 survey forms sent out, 27% or 490 fishermen returned forms with complete enough information to be used for data analysis. Expanded estimates provided in this report are based on the 490 returned surveys.

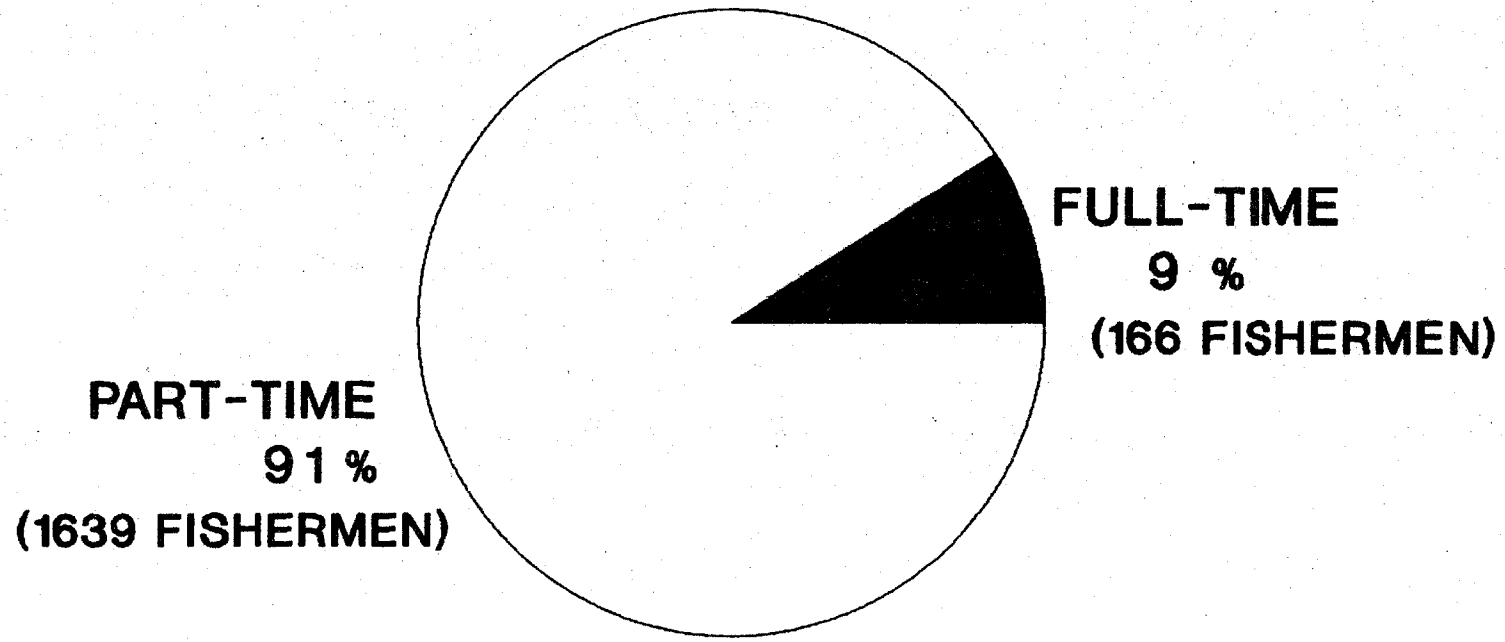
Results and Discussion

Nine percent of the commercial fishermen responding to the survey indicated that they considered themselves full-time fishermen. Fishermen responding to the survey who considered themselves as part-time fishermen represented 91% of the sample. If these percentages were expanded to the 1,805 licensed commercial fishermen, it is estimated that Tennessee has 166 full-time fishermen and 1,639 part-time fishermen (Figure 1).

Hargis (1966) reported that there were 289 full-time commercial fishermen and 1,636 part-time fishermen representing 15.0% and 85.0% respectively, which totalled 1,925 fishermen in 1966. Present data show that 9.2% consider themselves full-time fishermen compared to 15.0% in 1966, representing a 5.8% decrease. In 1966, there were 289 people fishing full-time, compared to 166 in 1989, resulting in a 42.6% reduction. Part-time fishermen estimates have remained similar, 1,636 in 1966 and 1,639 in 1989. Overall, commercial fishing license holders decreased from 1,925 in 1966 to 1,805 in 1989, representing a 6.23% reduction.

Data from the present survey indicate that an estimated 1,386 commercial license holders fish reservoirs, 641 fish rivers, 27 fish creeks and 15 fish small lakes. More

COMPOSITION OF COMMERCIAL FISHERMEN FULL-TIME AND PART-TIME



1805 COMMERCIAL FISHERMEN FISHED TENNESSEE'S WATERS IN 1989

FIGURE 1

commercial fishermen, an estimated 869, fish Kentucky Reservoir than any other body of water in Tennessee. The second most fished body of water in Tennessee is the Mississippi River, where an estimated 265 people fish. Estimates of commercial fishermen using other heavily fished waters are: 111 for the Hatchie River, 99 for Old Hickory Reservoir, 92 for Pickwick Reservoir and 74 for Barkley Reservoir. Estimates calculated for Pickwick may be faulty due to lack of ability to distinguish between answers, which probably meant Pickwick tailwater, and were given as Pickwick and attributed to Pickwick Reservoir. If this error is true, this would indicate that the estimates for Pickwick Reservoir is probably too high and those for Kentucky Reservoir are probably too low. Estimates of commercial fishermen using other bodies of water and percent full-time or part-time are listed in Table 1.

Commercial gear type use was examined next. The most used gear fished by all fishermen was the trotline (50.6%). Gill nets were fished 17.3% of the time by all fishermen. Hoop nets were fished 15.9%, trammel nets 12.8%, slat baskets 2.1% and snaglines 1.3% of the time (Figure 2). Seines were not reported used.

TABLE 1

COMMERCIAL FISHERMEN DEMOGRAPHICS FOR 1989

BODY OF WATER	NUMBER OF FISHERMEN	NUMBER FULL-TIME	PERCENT FULL-TIME	NUMBER PART-TIME	PERCENT PART-TIME
BARKLEY	74	41	55%	33	45%
CHEATHAM	22	15	67%	7	33%
CHEROKEE	22	4	17%	18	83%
CHICKAMAUGA	41	15	36%	26	64%
DOUGLAS	44	22	50%	22	50%
FORT LOUDOUN	11	7	67%	4	33%
GUNTERSVILLE	4	4	100%	0	0%
KENTUCKY	869	99	11%	770	89%
NICKAJACK	41	11	27%	30	73%
OLD HICKORY	99	26	26%	73	74%
PICKWICK	92	11	12%	81	88%
REELFOOT	29	4	13%	25	88%
WATTS BAR	37	4	10%	33	90%
JOHN SEVIER	0	0	0%	0	0%
DAVY CROCKET	0	0	0%	0	0%
CHISHOLM L.	7	0	0%	7	100%
CRUTCHER L.	4	0	0%	4	100%
BRUTENS BR.L	4	0	0%	4	100%
CUMBERLAND	48	15	31%	33	69%
FORKED DEER	41	15	36%	26	64%
FRENCH BROAD	15	7	50%	7	50%
HATCHIE	111	0	0%	111	100%

TABLE 1

COMMERCIAL FISHERMEN DEMOGRAPHICS FOR 1989

BODY OF WATER	NUMBER OF FISHERMEN	NUMBER FULL-TIME	PERCENT FULL-TIME	NUMBER PART-TIME	PERCENT PART-TIME
HIWASSEE	11	0	0%	11	100%
HOLSTON	18	4	20%	15	80%
LOOSAHATCHIE	7	0	0%	7	100%
MISSISSIPPI	265	7	3%	258	97%
NOLICHUCKY	7	0	0%	7	100%
OBION	52	0	0%	52	100%
OLD RIVER	7	0	0%	7	100%
WOLF RIVER	33	0	0%	33	100%
DUCK RIVER	22	0	0%	22	100%
BEECH RIVER	4	0	0%	4	100%
EMORY RIVER	0	0	0%	0	0%
CREEKS	27	0	0%	27	100%
RESERVOIRS	1386	263	19%	1122	81%
RIVERS	641	33	5%	608	95%
SMALL LAKES	15	0	0%	15	100%
ALL WATERS	1805	166	9%	1639	91%

PERCENT GEAR USE BY ALL COMMERCIAL FISHERMEN - 1989 SURVEY

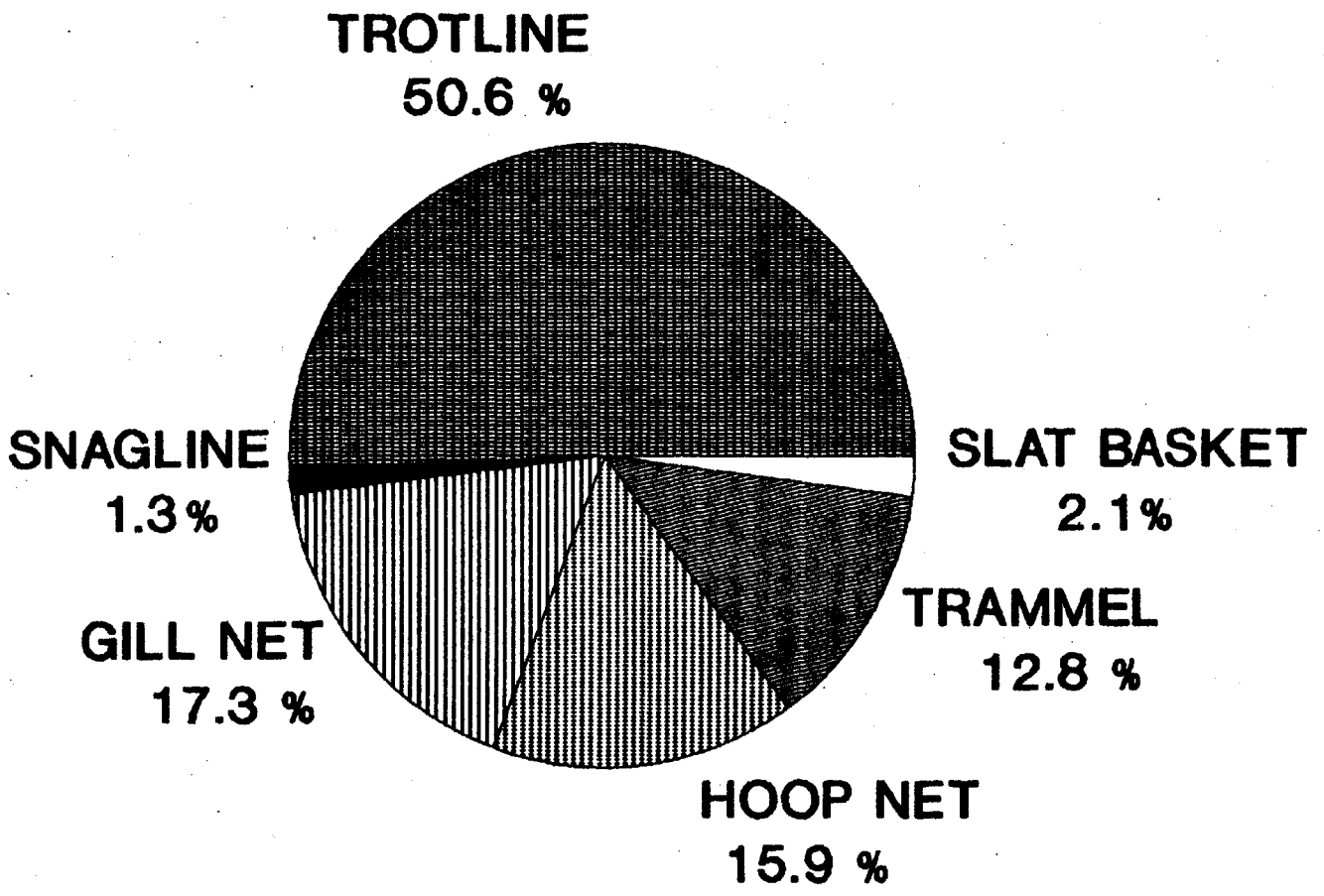


FIGURE 2

SEINES WERE NOT USED

Gear use by full-time fishermen and part-time fishermen were analyzed separately. Full-time fishermen used gill nets (43.1%) more than any other gear type (Figure 3). Trammel nets and trotlines were used equally at 23.6% of the time. Hoop nets were used 7.6% of the time. Full-time commercial fishermen used slat baskets only 2.1% of the time. Seines and snaglines were not reported used by full-time fishermen.

Part-time commercial fishermen used trotlines most of the time, estimated at 54.6% (Figure 4). Hoop nets were used 21.3%, trammel nets 10.4%, gill nets 9.5% and slat baskets 2.3% of the time by part-time fishermen. Snaglines were used the least, 1.9% of the time. Seines were not reported used by part-time fishermen either.

It is interesting to note the gear type preferences for the two groups of commercial fishermen (Table 2). Full-time fishermen relied on entanglement gear to harvest their catch. The combined estimated use for gill and trammel nets for full-time fishermen was 66.7%. In contrast, part-time fishermen used entanglement gear much less, with a combined estimate of use for gill and trammel nets of only 19.9%. Part-time fishermen used gear that traps its catch such as slat baskets and hoop nets more than full-time fishermen. The combined estimates for slat baskets and hoop nets used

PERCENT GEAR USE FOR FULL-TIME COMMERCIAL FISHERMEN - 1989 SURVEY

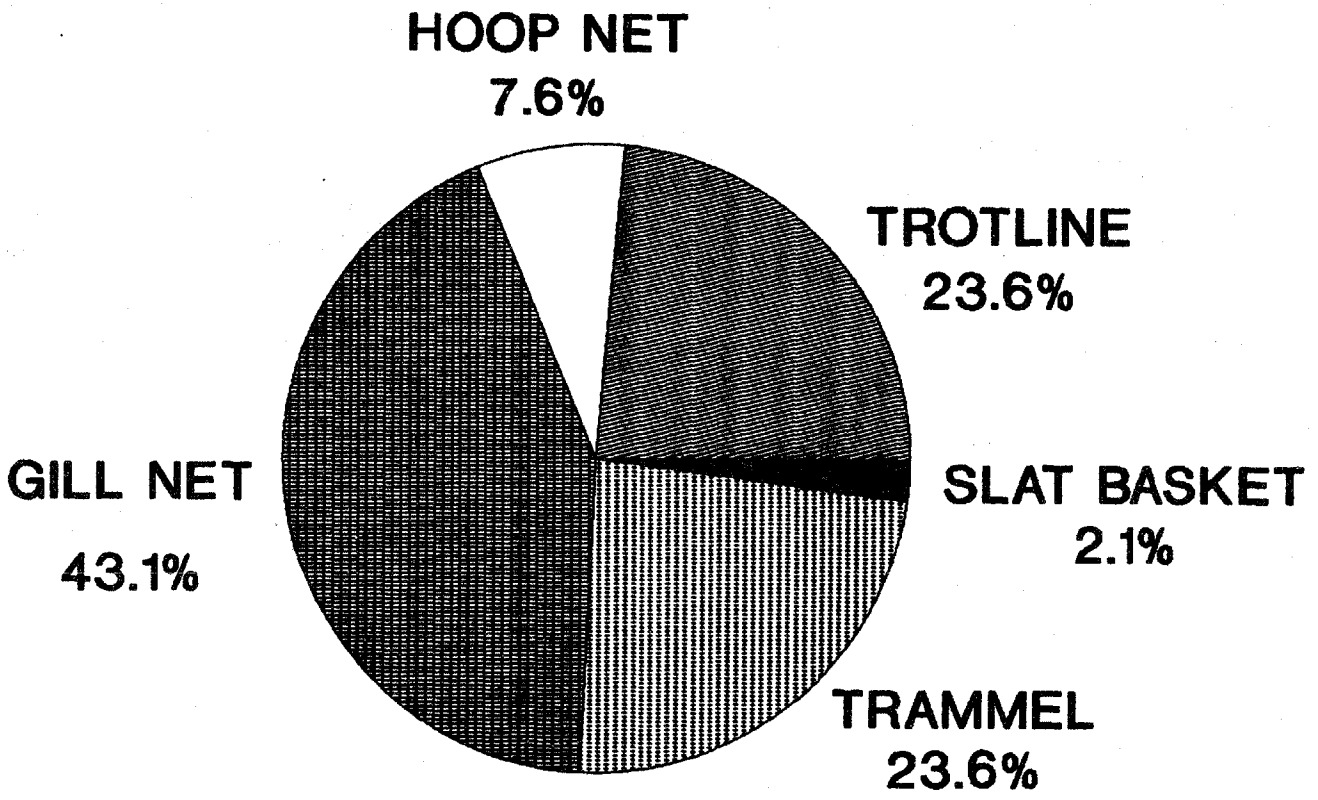
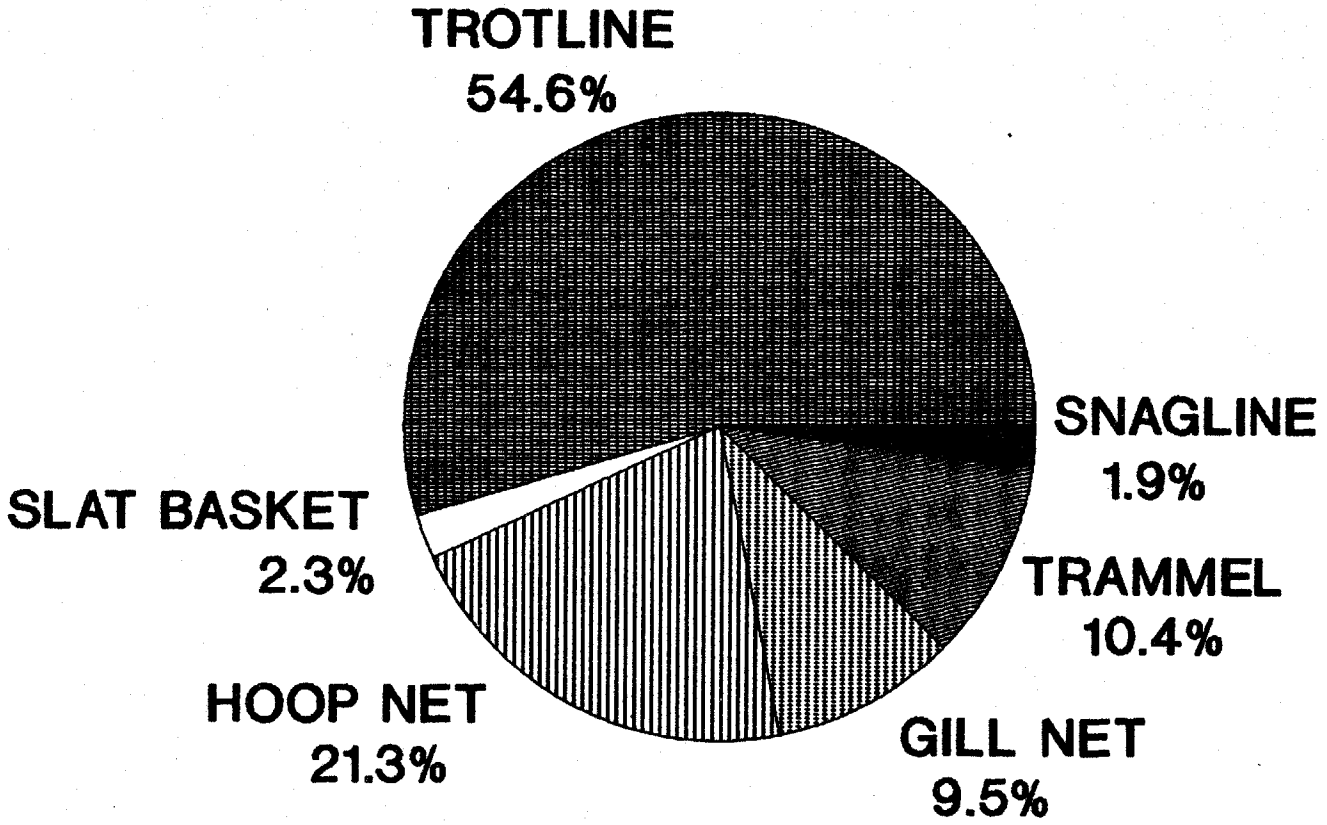


FIGURE 3

SEINES AND SNAGLINES WERE NOT USED

PERCENT GEAR USE FOR PART-TIME COMMERCIAL FISHERMEN 1989 SURVEY



SEINES WERE NOT USED

FIGURE 4

TABLE 2

PERCENT GEAR USE BY TYPE OF COMMERCIAL FISHERMEN
1989 SURVEY

GEAR	FULL-TIME	PART-TIME	ALL FISHERMEN
TROTLINES	23.6%	54.6%	50.6%
GILL NETS	43.1%	9.5%	17.3%
HOOP NETS	7.6%	21.3%	15.9%
SEINES	0.0%	0.0%	0.0%
SNAGLINES	0.0%	1.9%	1.3%
TRAMMEL NETS	23.6%	10.4%	12.8%
SLAT BASKETS	2.1%	2.3%	2.1%

by part-time fishermen was 23.6% compared to the estimates for the same gear used by full-time fishermen was 9.7%. Part-time fishermen used trotlines (54.6%) more than did full-time fishermen (23.6%). Part-time commercial fishermen reported using snaglines 1.9% of the time whereas full-time fishermen did not report using them.

Commercial fishermen reported that they fished reservoirs the most, 67% of the time, in 1989 (Figure 5). Rivers were reported fished 31% of the time. Fishermen reported fishing creeks 1.3% and small lakes 0.7% of the time. Most of the creeks reported fished are located in Anderson Tully Wildlife Management Area. The small lakes reported fished are oxbows of the Mississippi River.

The estimated harvest of 1989 for Tennessee waters was 11,411,701 pounds of fish. Most of the catch was from reservoirs which were estimated at 10,332,603 pounds, comprising 90.5% of the total (Figure 6). The catch from rivers contributed 1,051,153 pounds or 9.2% of the harvest. The combined estimated catch from small lakes and creeks was only 0.2% of the total harvest. Table 3 lists the estimated harvest from each body of water which is open to commercial fishing. The catch for Kentucky Reservoir was estimated at 4,258,137 pounds which was the highest and comprised 37.3% of the state's total commercial harvest. Douglas had the

PERCENT USE OF WATER TYPE BY COMMERCIAL FISHERMAN - 1989 SURVEY

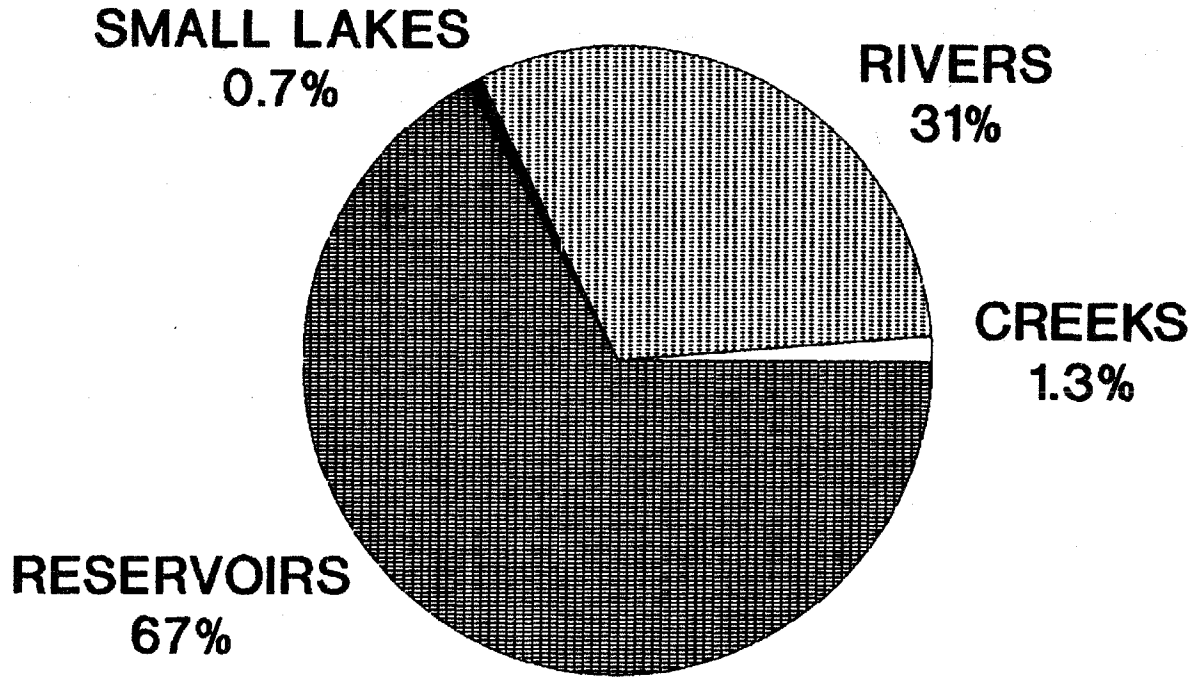
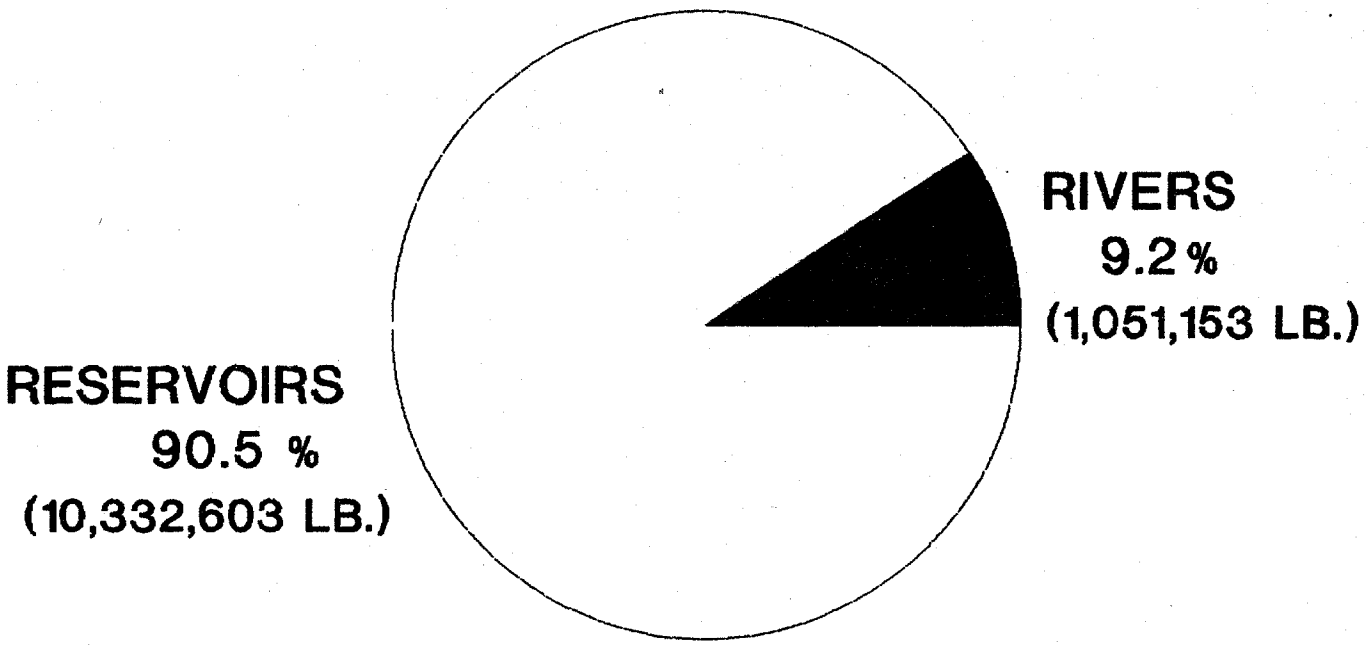


FIGURE 5

PERCENT OF COMMERCIAL HARVEST BY WEIGHT AND BY TYPE OF WATER USED



SMALL LAKES CONTRIBUTED A TRACE AMOUNT AND CREEKS CONTRIBUTED 0.2% OF THE TOTAL COMMERCIAL HARVEST

FIGURE 6

TABLE 3

1989 COMMERCIAL FISH HARVEST BY BODY OF WATER

BODY OF WATER	TOTAL POUNDS HARVESTED	PERCENT COMPOSITION OF THE HARVEST
BARKLEY	1,084,731	9.5
CHEATHAM	238,021	2.1
CHEROKEE	42,251	0.4
CHICKAMAUGA	488,061	4.3
DOUGLAS	1,447,659	12.7
FORT LOUDOUN	883,160	7.7
GUNTERSVILLE	57,465	0.5
KENTUCKY	4,258,137	37.3
NICKAJACK	233,844	2.0
OLD HICKORY	550,422	4.8
PICKWICK	801,231	7.0
REELFOOT	203,522	1.8
WATTS BAR	44,099	0.4
JOHN SEVIER	0	0.0
DAVY CROCKET	0	0.0
CHISHOLM L.	1,547	0.0
CRUTCHER L.	589	0.0
BRUTENS BR.L	663	0.0
CUMBERLAND	167,342	1.5
FORKED DEER	28,773	0.3
FRENCH BROAD	35,761	0.3
HATCHIE	86,928	0.8
HIWASSEE	3,186	0.0
HOLSTON	180,117	1.6
LOOSAHATCHIE	1,293	0.0
MISSISSIPPI	425,217	3.7
NOLICHUCKY	781	0.0
OBION	63,886	0.6
OLD RIVER	239	0.0
WOLF RIVER	17,129	0.2
DUCK RIVER	14,716	0.1
BEECH RIVER	25,785	0.2
EMORY RIVER	0	0.0
CREEKS	25,146	0.2
RESERVOIRS	10,332,603	90.5
RIVERS	1,051,153	9.2
SMALL LAKES	2,799	0.0
ALL WATERS	11,411,701	100.0

second highest catch estimate of 1,447,659 pounds or 12.7% of the harvest. The next highest estimate, 1,084,731 pounds, was for Barkley Reservoir which represented 9.5% of the harvest. The harvest for Pickwick Reservoir was estimated at 801,231 pounds or 7.0% of the harvest. The estimate calculated for Pickwick Reservoir is thought to be higher than the actual harvest due to reporting problems previously discussed. The harvest estimated for Old Hickory Reservoir was 550,422 pounds or 4.8% of the total. The highest harvest estimate for a river was 425,217 pounds or 3.7% of the total for the Mississippi River.

The commercial harvest was then examined by the pounds of fish caught per acre of water. Estimates for reservoirs were the only values calculated due to the difficulty in assigning acreages to other water types. It was estimated that Pickwick Reservoir had a harvest of 130.07 pounds per acre. This extremely high estimate can be attributed to reporting problems (Table 4). Pickwick Reservoir lies in two states, Alabama and Tennessee; only 6,160 acres of the reservoir lie in Tennessee and this acreage was used in calculating the estimate. If fish had been caught in the Alabama portion of the reservoir but still reported, it would contribute to inflating the estimate. Also, it is difficult to separate replies which state Pickwick and could mean Pickwick Reservoir or Pickwick tailwater, in which case

TABLE 4

1989 COMMERCIAL FISH HARVEST BY BODY OF WATER
REPORTED IN POUNDS PER ACRE

BODY OF WATER	ACREAGE	POUNDS PER ACRE
BARKLEY	15,900	68.22
CHEATHAM	7,450	31.95
CHEROKEE	30,200	1.40
CHICKAMAUGA	34,500	14.15
DOUGLAS	30,600	47.31
FORT LOUDOUN	14,600	60.49
GUNTERSVILLE	2,170	26.48
KENTUCKY	108,040	39.41
NICKAJACK	10,800	21.65
OLD HICKORY	22,500	24.46
PICKWICK	6,160	130.07
REELFOOT	10,000	20.35
WATTS BAR	38,600	1.14
JOHN SEVIER	811	0.00
DAVY CROCKET	797	0.00
CHISHOLM L.	0	*******.**
CRUTCHER L.	0	*******.**
BRUTENS BR.L	0	*******.**
CUMBERLAND	0	0.00
FORKED DEER	0	*******.**
FRENCH BROAD	0	0.00
HATCHIE	0	0.00
HIWASSEE	0	*******.**
HOLSTON	0	0.00
LOOSAHATCHIE	0	*******.**
MISSISSIPPI	0	0.00
NOLICHUCKY	0	*******.**
OBION	0	0.00
OLD RIVER	0	*******.**
WOLF RIVER	0	*******.**
DUCK RIVER	0	*******.**
BEECH RIVER	0	*******.**
EMORY RIVER	0	*******.**
CREEKS	0	*******.**
RESERVOIRS	333,128	31.02
RIVERS	0	0.00
SMALL LAKES	0	*******.**
ALL WATERS	0	0.00

* = WILL NOT COMPUTE

the harvest should be attributed to Kentucky reservoir. All replies which stated Pickwick were assigned to Pickwick Reservoir which probably inflated the harvest value. It is the author's opinion that this estimate is far too high and unrealistic.

The highest commercial yield, which is thought to be reliable, is 68.22 pounds per acre for Barkley Reservoir. Fort Loudoun Reservoir had a calculated yield of 60.49 pounds per acre. The next highest yield of 47.31 pounds per acre was calculated for Douglas Reservoir. The largest body of water open to commercial fishing, Kentucky Reservoir, had a yield of 39.41 pounds per acre. An average yield of 31.02 pounds per acre was calculated for the combined reservoir acreages of Tennessee open to commercial fishing.

Full-time commercial fishermen harvested an estimated 8,072,201 pounds of fish from Tennessee waters in 1989 (Table 5). Fish harvested from reservoirs accounted for 96.3% or 7,774,637 pounds of the total harvest for this group of fishermen. Harvest from rivers accounted for the other 3.7% of the catch for full-time fishermen. Full-time fishermen did not report fishing small lakes or creeks. The largest percentage of the harvest for this group of fishermen was estimated at 34.6% for Kentucky Reservoir which represents 2,792,102 pounds of fish. Full-time

TABLE 5

1989 COMMERCIAL FISH HARVEST BY BODY OF WATER
FOR FULL-TIME FISHERMEN

BODY OF WATER	TOTAL POUNDS HARVESTED	PERCENT COMPOSITION OF THE HARVEST
BARKLEY	959,412	11.9%
CHEATHAM	151,823	1.9%
CHEROKEE	19,432	0.2%
CHICKAMAUGA	465,433	5.8%
DOUGLAS	1,369,681	17.0%
FORT LOUDOUN	882,424	10.9%
GUNTERSVILLE	57,465	0.7%
KENTUCKY	2,792,102	34.6%
NICKAJACK	148,837	1.8%
OLD HICKORY	443,625	5.5%
PICKWICK	401,521	5.0%
REELFOOT	64,464	0.8%
WATTS BAR	18,418	0.2%
CUMBERLAND	129,732	1.6%
FRENCH BROAD	34,299	0.4%
HOLSTON	19,432	0.2%
MISSISSIPPI	114,101	1.4%
RESERVOIRS	7,774,637	96.3%
RIVERS	297,564	3.7%
ALL WATERS	8,072,201	100.0%

fishermen's second most abundant harvest came from Douglas Reservoir and was estimated at 1,369,681 pounds which accounted for 17.0% of the total. An estimated 959,412 pounds were harvested from Barkley Reservoir. Fort Loudoun had an estimated harvest of 882,424 pounds. Only 1.4% of the total harvest by full-time fishermen came from the Mississippi River. Estimates of harvest for the various waters fished by full-time fishermen are listed in Table 5.

The Tennessee harvest for part-time fishermen was estimated at 3,341,266 pounds (Table 6). Fish harvested from reservoirs accounted for 76.6% of the total for part-time fishermen. Estimates for rivers, creeks and small lakes accounted for 22.6%, 0.8% and 0.1% of the total harvest, respectively, by part-time fishermen. The largest harvest estimate was 1,466,034 pounds for Kentucky Reservoir which represented 43.9% of the total for these fishermen. The estimate for Pickwick was 399,712 pounds or 12.0% of their catch. Part-time fishermen harvested 160,686 pounds of fish from the Holston River which comprised 4.8% of the total harvest. Harvest estimates for all waters fished by part-time fishermen are listed in Table 6.

In general, most of the harvest for each reservoir was caught by full-time fishermen which is illustrated in Figure 7. Cherokee Reservoir, Reelfoot Lake and Watts Bar

TABLE 6

1989 COMMERCIAL FISH HARVEST BY BODY OF WATER
FOR PART-TIME FISHERMEN

BODY OF WATER	TOTAL POUNDS HARVESTED	PERCENT COMPOSITION OF THE HARVEST
BARKLEY	125,318	3.8%
CHEATHAM	86,197	2.6%
CHEROKEE	22,820	0.7%
CHICKMAUGA	24,178	0.7%
DOUGLAS	77,976	2.3%
FORT LOUDOUN	736	0.0%
GUNTERSVILLE	0	0.0%
KENTUCKY	1,466,034	43.9%
NICKAJACK	85,005	2.5%
OLD HICKORY	106,798	3.2%
PICKWICK	399,712	12.0%
REELFOOT	139,058	4.2%
WATTS BAR	26,681	0.8%
CHISHOLM L.	1,547	0.0%
CRUTCHER L.	589	0.0%
BRUTENS BR.L	663	0.0%
CUMBERLAND	37,609	1.1%
FORKED DEER	28,773	0.9%
FRENCH BROAD	1,467	0.0%
HATCHIE	86,928	2.6%
HIWASSEE	3,186	0.1%
HOLSTON	160,686	4.8%
LOOSAHATCHIE	1,293	0.0%
MISSISSIPPI	311,119	9.3%
NOLICHUCKY	781	0.0%
OBION	63,886	1.9%
OLD RIVER	239	0.0%
WOLF RIVER	16,890	0.5%
DUCK RIVER	14,716	0.4%
BEECH RIVER	25,785	0.8%
CREEKS	25,146	0.8%
SMALL LAKES	2,799	0.1%
RIVERS	753,358	22.6%
RESERVOIRS	2,560,513	76.6%
ALL WATERS	3,341,266	100.0%

ESTIMATED 1989 COMMERCIAL FISH HARVEST FOR RESERVOIRS

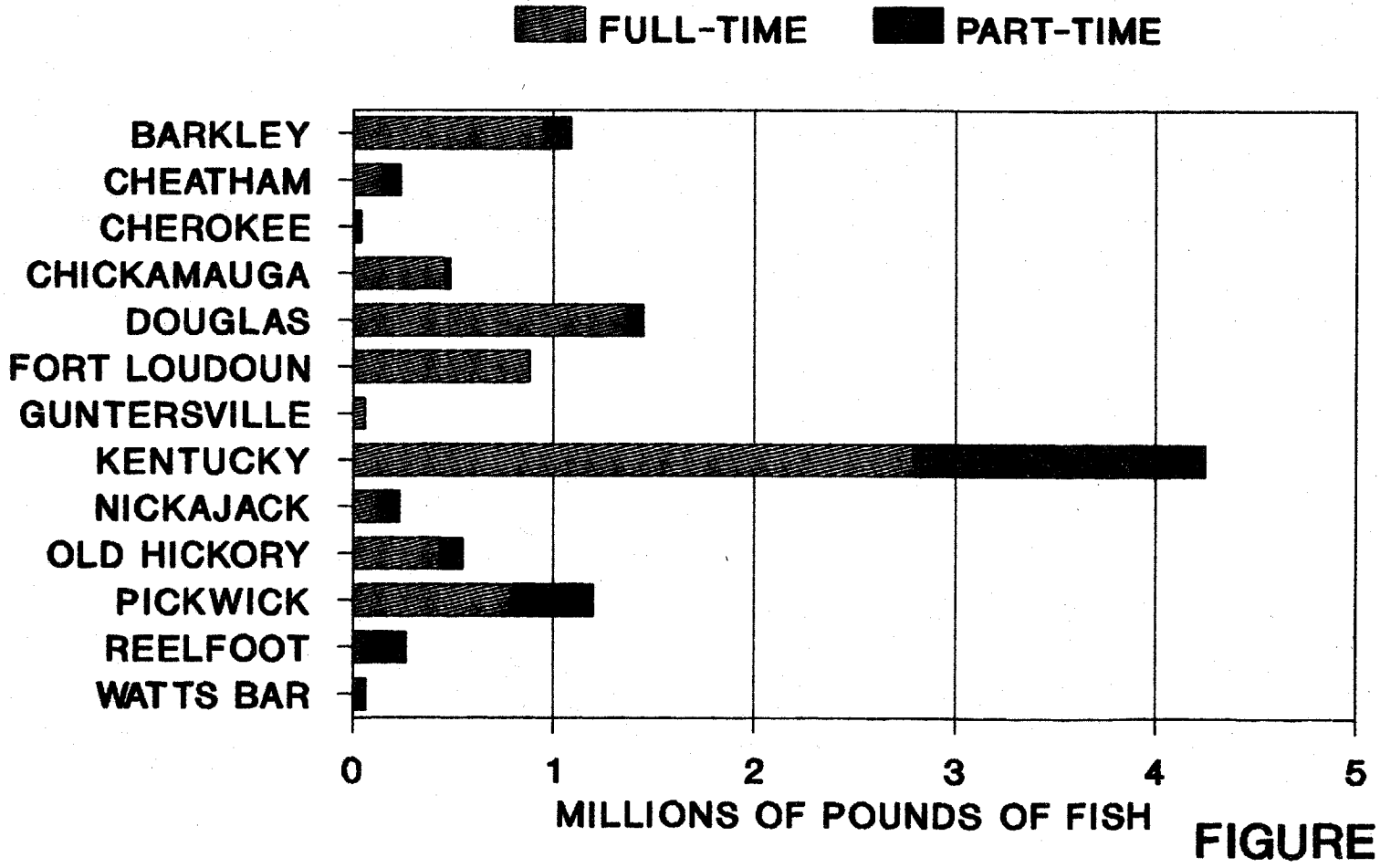


FIGURE 7

Reservoirs are exceptions in that part-time fishermen harvested more fish from these waters than did full-time fishermen. In contrast, most of the harvest for each river was caught by part-time fishermen which is illustrated in Figure 8. The Cumberland and French Broad Rivers are exceptions in that full-time fishermen harvested more fish from these waters than did part-time fishermen. Figure 9 illustrates the harvest by type of water fished and type of commercial fishermen. It is interesting to note that although full-time fishermen comprised only 9% of the fishermen, they harvested 8,072,201 pounds of fish or 70.7% of the total commercial harvest for Tennessee.

The composition of the 1989 commercial fish harvest by species is illustrated in Figure 10. Catfish comprised the largest part of the harvest at 33% which was followed closely by buffalo at 32%. Drum accounted for 19% of the harvest. Carp contributed 11% of the harvest. Other fish such as gar, bowfin, yellow bass, etc. represented 1% of the total harvest. Suckers comprised less than 1% of the harvest from Tennessee waters. Table 7 lists the harvest by species and by waters fished. More pounds of fish of any species, except buffalo, were harvested from Kentucky Reservoir than any other body of water. Aside from Kentucky Reservoir, Barkley Reservoir had the next highest harvest of catfish, estimated at 299,188 pounds. Douglas Reservoir had the

ESTIMATED 1989 COMMERCIAL FISH HARVEST FOR RIVERS IN TENNESSEE

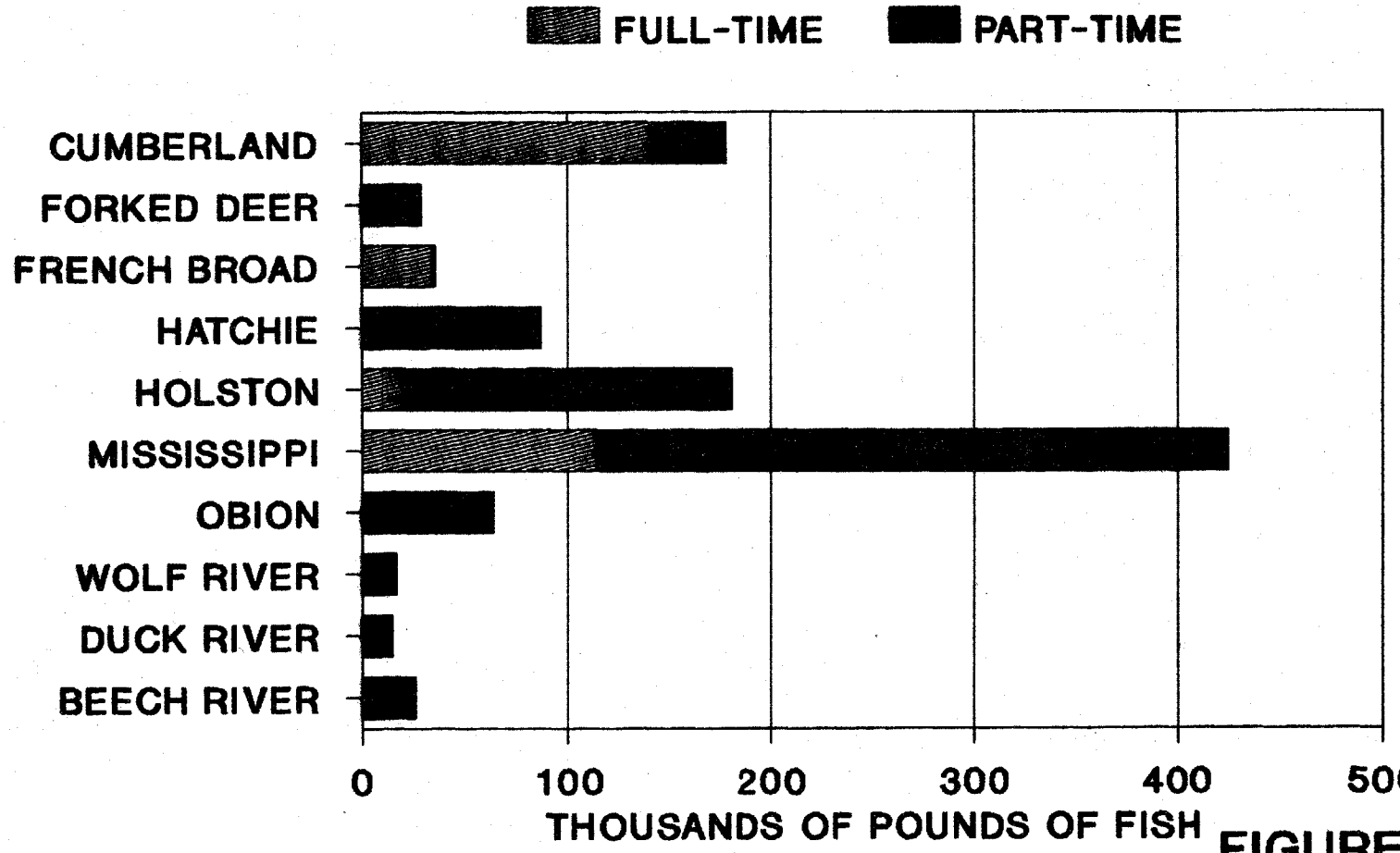
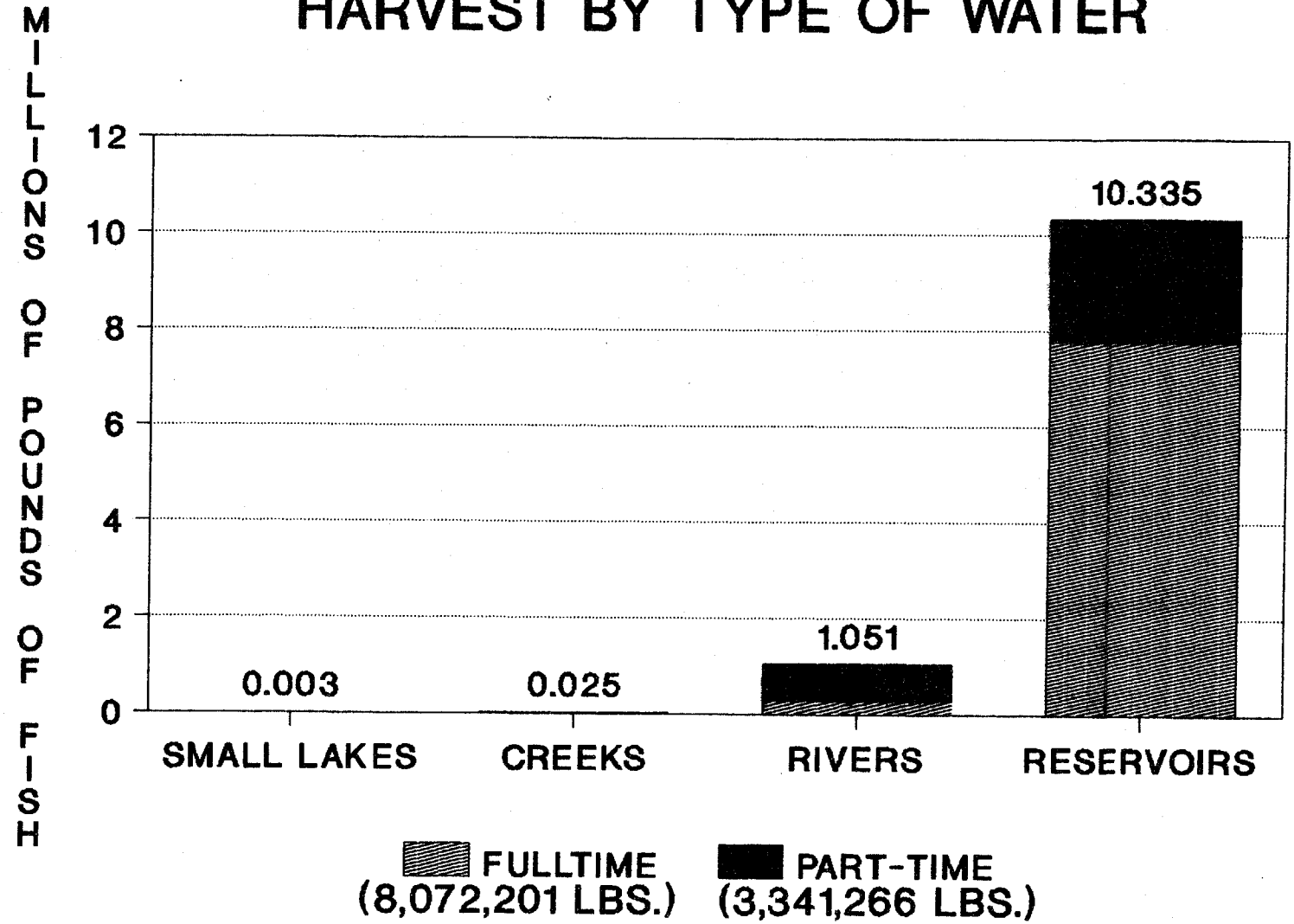


FIGURE 8

ESTIMATED 1989 COMMERCIAL FISH HARVEST BY TYPE OF WATER



TOTAL HARVEST = 11,411,701 POUNDS

FIGURE 9

COMPOSITION OF THE 1989 COMMERCIAL FISH HARVEST BY SPECIES

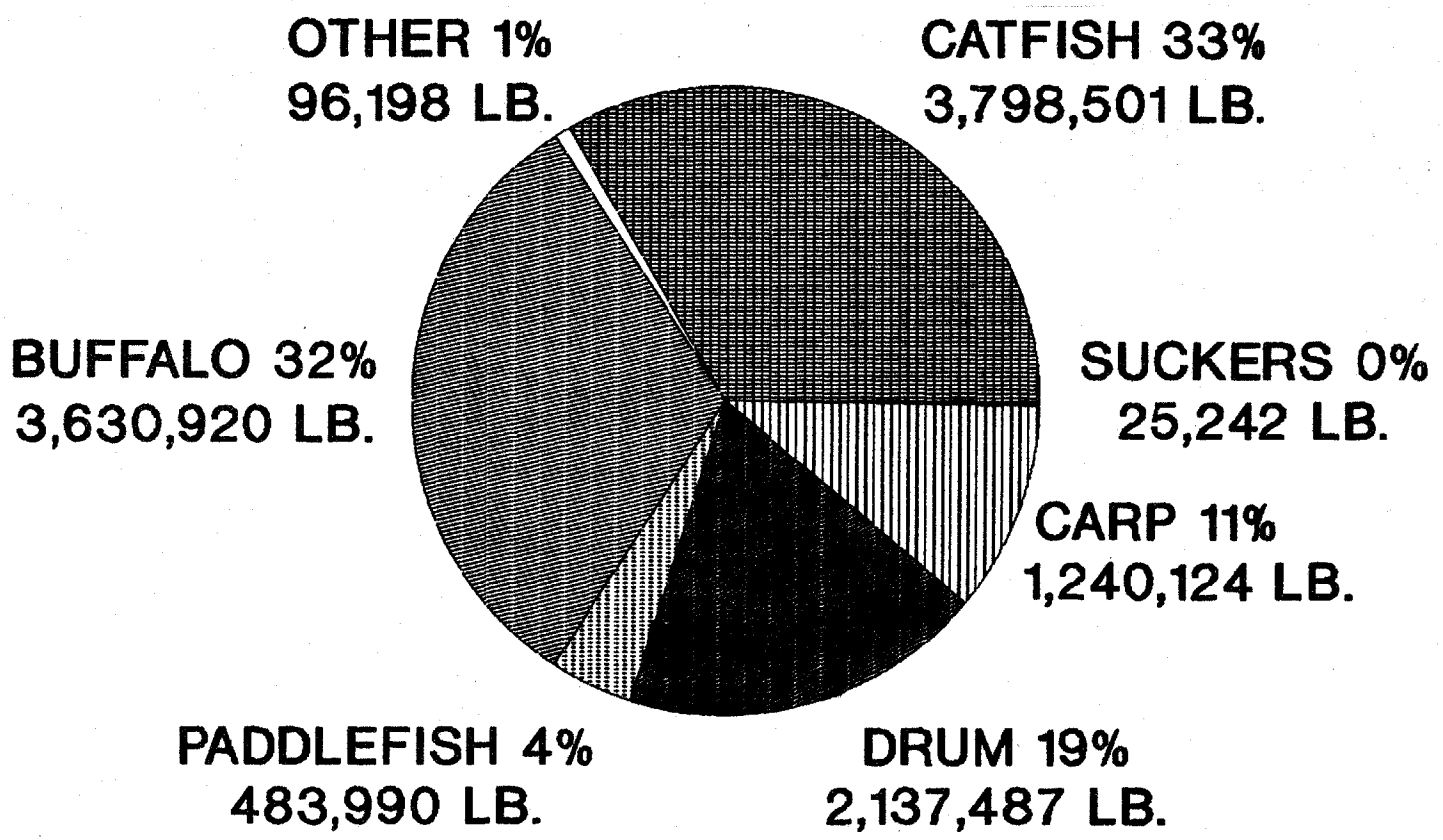


FIGURE 10

TABLE 7

1989 COMMERCIAL FISH HARVEST IN POUNDS BY SPECIES BY BODY OF WATER

BODY OF WATER	CATFISH	BUFFALO	PADDLEFISH	DRUM	CARP	SUCKERS	OTHER
BARKLEY	299,188	344,202	59,639	296,536	74,484	9,209	1,473
CHEATHAM	16,577	44,941	11,346	137,217	26,338	129	1,473
CHEROKEE	24,054	15,103	497	608	1,989	0	0
CHICKAMAUGA	142,853	101,485	1,687	104,543	117,601	0	19,892
DOUGLAS	218,921	894,212	37,806	89,053	198,182	92	9,393
FORT LOUDOUN	88,408	534,501	74,042	12,340	173,869	0	0
GUNTERSVILLE	29,469	14,735	1,473	5,894	5,894	0	0
KENTUCKY	1,901,862	777,428	209,829	1,048,955	269,092	10,351	40,620
NICKAJACK	59,197	65,938	1,661	53,376	44,757	995	7,920
OLD HICKORY	157,919	190,888	29,805	90,751	75,423	479	5,157
PICKWICK	117,019	278,456	36,321	216,563	152,872	0	0
REELFOOT	128,744	31,311	1,289	18,787	23,023	0	368
WATTS BAR	44,554	0	361	184	0	0	0
JOHN SEVIER	0	0	0	0	0	0	0
DAVY CROCKET	0	0	0	0	0	0	0
CHISHOLM L.	74	1,289	0	0	184	0	0
CRUTCHER L.	221	368	0	0	0	0	0
BRUTENS BR.L	663	0	0	0	0	0	0
CUMBERLAND	126,236	28,493	3,772	3,868	1,289	0	3,684
FORKED DEER	6,667	14,672	608	589	5,905	111	221
FRENCH BROAD	9,578	24,091	158	92	1,842	0	0
HATCHIE	34,251	37,470	855	4,914	4,623	2,568	2,247
HIWASSEE	2,947	0	0	55	184	0	0
HOLSTON	155,805	21,734	0	92	2,486	0	0
LOOSAHATCHIE	829	435	0	0	29	0	0
MISSISSIPPI	174,411	138,782	9,382	49,601	49,917	129	2,995
NOLICHUCKY	781	0	0	0	0	0	0
OBION	17,299	32,464	2,354	2,733	8,023	350	663
OLD RIVER	55	184	0	0	0	0	0
WOLF RIVER	8,325	6,723	0	368	553	829	92
DUCK RIVER	14,569	147	0	0	0	0	0
BEECH RIVER	7,367	18,418	0	0	0	0	0
EMORY RIVER	0	0	0	0	0	0	0
CREEKS	9,658	12,450	1,105	368	1,565	0	0
RESERVOIRS	3,228,765	3,293,200	465,756	2,074,807	1,163,524	21,255	86,296
RIVERS	559,120	323,613	17,129	62,312	74,851	3,987	9,902
SMALL LAKES	958	1,657	0	0	184	0	0
ALL WATERS	3,798,501	3,630,920	483,990	2,137,487	1,240,124	25,242	96,198

highest harvest of buffalo, estimated at 894,212 pounds. Fort Loudoun had the second highest harvest estimate for paddlefish, which was 74,042 pounds. Again, Barkley had the next to the highest estimated for drum at 296,536 pounds. Douglas had the second highest estimate of 198,182 pounds of carp harvested. Aside from Kentucky Reservoir, Barkley had the highest harvest estimate for suckers at 9,209 pounds. Similarly, other than Kentucky reservoir, Chickamauga Reservoir had the highest estimate of 19,892 pounds of fish harvested other than those species previously mentioned.

Comparing the harvest estimates of this survey with those reported by Hargis (1968), it appears that the 1989 harvest was greater than the harvest for any year between 1954 and 1965. The largest harvest in this period was 8.2 million pounds for 1963 compared to the 11.4 million pounds in 1989. In 1955, 3,744,500 pounds of catfish were harvested from Tennessee waters, compared to 3,798,501 pounds in 1989. In 1963, 1,744,000 pounds of buffalo were harvested, compared to 3,630,920 pounds in 1989. However, more carp were harvested in 1955 (1,317,900 pounds) and in 1964 (1,479,200 pounds) than in 1989 (1,240,124 pounds).

Pickwick Reservoir had the highest estimated yield for all commercial species except suckers and fish that fell in other or miscellaneous category for 1989 (Table 8). As

TABLE 8

1989 COMMERCIAL HARVEST BY SPECIES BY BODY OF WATER - REPORTED IN POUNDS PER ACRE

BODY OF WATER	CATFISH	BUFFALO	PADDLEFISH	DRUM	CARP	SUCKERS	OTHER
BARKLEY	18.82	21.65	3.75	18.65	4.68	0.58	0.09
CHEATHAM	2.23	6.03	1.52	18.42	3.54	0.02	0.20
CHEROKEE	0.80	0.50	0.02	0.02	0.07	0.00	0.00
CHICKAMAUGA	4.14	2.94	0.05	3.03	3.41	0.00	0.58
DOUGLAS	7.15	29.22	1.24	2.91	6.48	*******.**	0.31
FORT LOUDOUN	6.06	36.61	5.07	0.85	11.91	0.00	0.00
GUNTERSVILLE	13.58	6.79	0.68	2.72	2.72	0.00	0.00
KENTUCKY	17.60	7.20	1.94	9.71	2.49	0.10	0.38
NICKAJACK	5.48	6.11	0.15	4.94	4.14	0.09	0.73
OLD HICKORY	7.02	8.48	1.32	4.03	3.35	0.02	0.23
PICKWICK	19.00	45.20	5.90	35.16	24.82	0.00	0.00
REELFOOT	12.87	3.13	0.13	1.88	2.30	0.00	0.04
WATTS BAR	1.15	0.00	0.01	*******.**	0.00	0.00	0.00
JOHN SEVIER	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DAVY CROCKET	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHISHOLM L.	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**
CRUTCHER L.	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**
BRUTENS BR.L	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**
CUMBERLAND	0.00	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**
FORKED DEER	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**
FRENCH BROAD	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**
HATCHIE	0.00	0.00	*******.**	*******.**	*******.**	*******.**	*******.**
HIWASSEE	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**
HOLSTON	0.00	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**
LOOSAHATCHIE	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**
MISSISSIPPI	0.00	0.00	*******.**	0.00	0.00	*******.**	*******.**
NOLICHUCKY	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**
OBION	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**
OLD RIVER	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**
WOLF RIVER	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**
DUCK RIVER	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**
BEECH RIVER	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**
EMORY RIVER	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**
CREEKS	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**
RESERVOIRS	9.69	9.89	1.40	6.23	3.49	0.06	0.26
RIVERS	0.00	0.00	*******.**	0.00	0.00	*******.**	*******.**
SMALL LAKES	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**	*******.**
ALL WATERS	0.00	0.00	0.00	0.00	0.00	*******.**	0.00

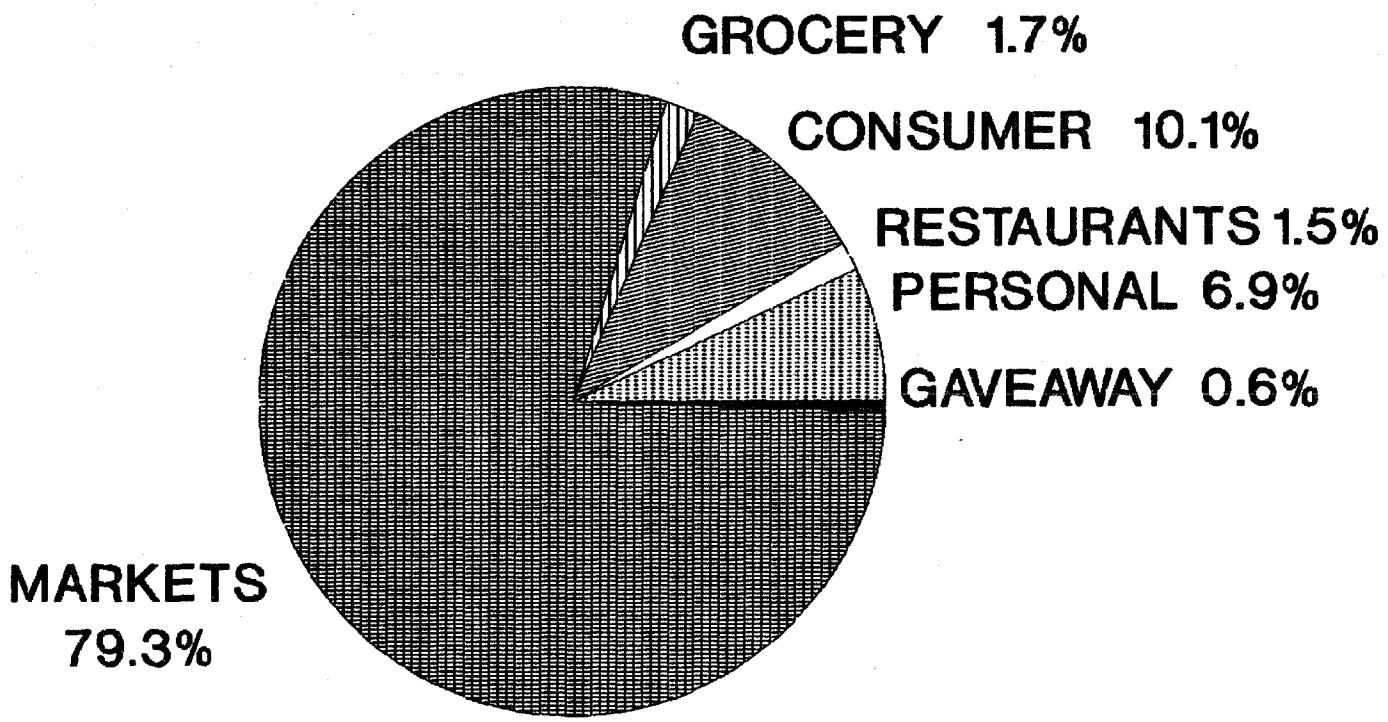
*** = WILL NOT COMPUTE

mentioned before, the values estimated for this body of water are thought to be extremely high and not valid. Barkley Reservoir had the greatest estimated yield of catfish (18.82 pounds per acre), drum (18.65 pounds per acre) and suckers (0.58 pounds per acre) of any body of water except Pickwick Reservoir. Fort Loudoun had the greatest yield of buffalo (36.61 pounds per acre), paddlefish (5.07 pounds per acre) and carp (11.91 pounds per acre) except for Pickwick Reservoir. Nickajack Reservoir had the greatest yield for fish that were included in the other category (0.73 pounds per acre).

Commercial fishermen in general dispose of their catch in a variety of methods, but most of the fish, 79.3% by weight, are sold to wholesale fish markets (Figure 11). Consumers bought 10.1% directly from the fishermen. They kept 6.9% for personal use. Fishermen sold 1.7% to groceries and 1.5% to restaurants. They gave away only 0.6% of their catch to friends and neighbors.

Full-time commercial fishermen differed from the above disposal description (Figure 12). These fishermen sold 85.2% of their fish by weight to wholesale fish markets. They sold 10.9% directly to the consumer. Full-time

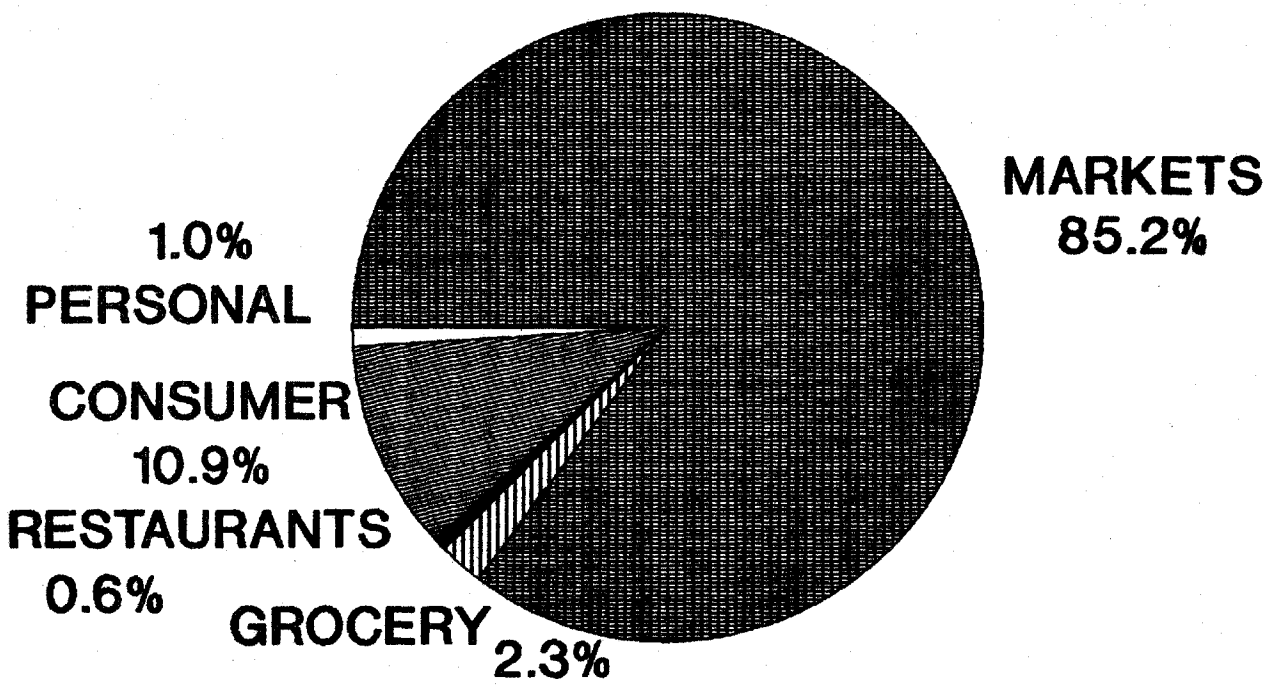
DISPOSITION OF COMMERCIAL CATCH FOR ALL FISHERMEN 1989 SURVEY



PERCENT BY WEIGHT

FIGURE 11

DISPOSITION OF CATCH BY FULL-TIME COMMERCIAL FISHERMEN 1989 SURVEY



PERCENT BY WEIGHT

ONLY A TRACE OF THE CATCH BY WEIGHT WAS GIVEN AWAY

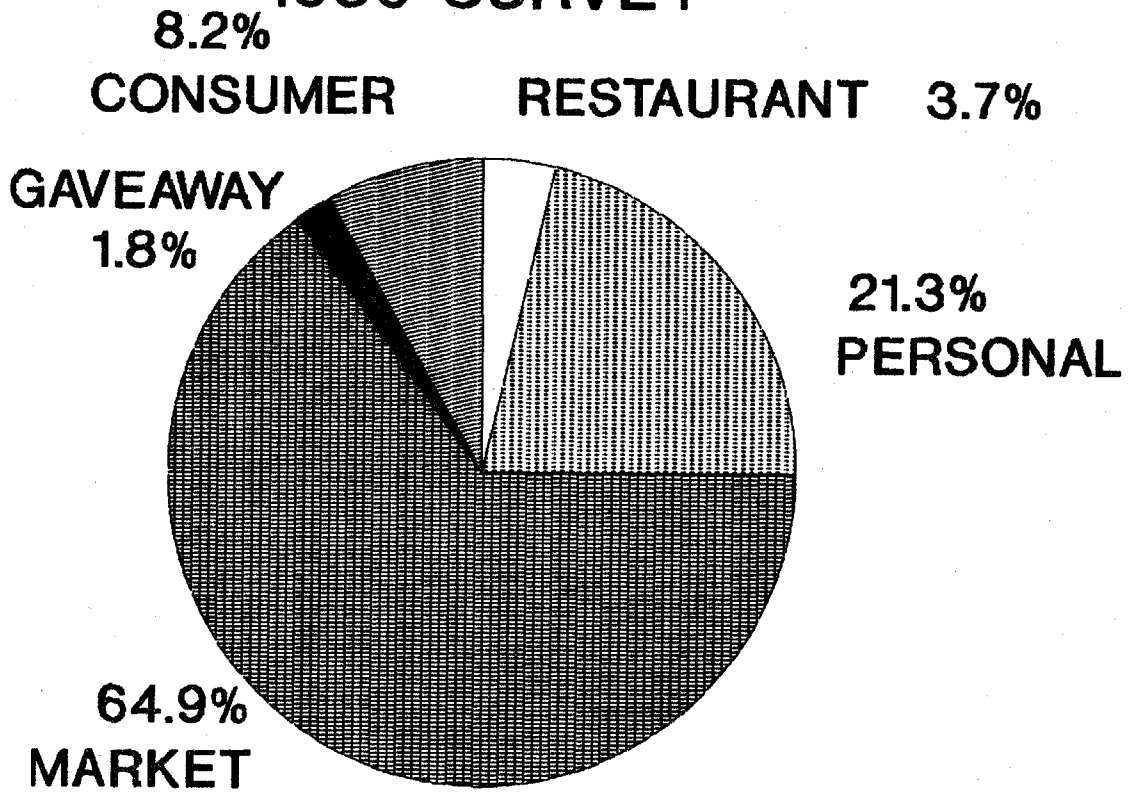
FIGURE 12

fishermen sold 2.3% to groceries and 0.6% to restaurants. These fishermen kept only 1% for their own use and gave almost none away.

Part-time fishermen sold 64.9% to wholesale fish markets by weight (Figure 13). They kept 21.3% for personal use. These fishermen sold 8.2% to consumers, 3.7% to restaurants and only 0.1% to groceries. Part-time fishermen gave away 1.8% of their catch.

Full-time fishermen differed in disposal method from part-time fishermen in that, in general, they sold more. A greater percentage of their catch went to wholesale fish markets, groceries, restaurants and to the consumer than did part-time fishermen. Part-time fishermen gave away and kept for personal use a greater percentage of their catch than did full-time fishermen.

DISPOSITION OF THE COMMERCIAL CATCH BY PART-TIME FISHERMEN 1989 SURVEY



PERCENT BY WEIGHT

ONLY 0.1% BY WEIGHT WAS SOLD TO GROCERIES

FIGURE 13

SUMMARY

In 1989, the 1,805 commercial fishermen harvested an estimated 11,411,701 pounds from Tennessee waters. Of the 1,805 commercial fishermen, 9% considered themselves full-time and 91% considered themselves part-time. Full-time fishermen used entanglement gear more than did part-time fishermen. Part-time fishermen used entrapment gear and trotlines more than did full-time fishermen. An estimated 10,332,603 pounds, or 90.5% of the harvest, was from reservoirs and 1,051,153 pounds, or 9.2% of the harvest, was from rivers. The largest commercial catch from a reservoir was 4,258,137 pounds from Kentucky Reservoir. The greatest harvest from a river was 425,217 pounds from the Mississippi River. An estimated 3,798,501 pounds of catfish, 3,630,920 pounds of buffalo, 2,137,487 pounds of drum, 1,240,124 pounds of carp, 483,990 pounds of paddlefish, 25,242 pounds of suckers, 96,198 pounds of miscellaneous fish were harvested from Tennessee. Commercial fishermen sold 79.3% of their catch to markets, 10.1% to the consumer directly, 1.7% to groceries and 1.5% to restaurants. They gave away 0.6% of their catch and kept 6.9% for their personal use.

RECOMMENDATIONS

1. Continue to conduct the commercial fishing survey to provide harvest data which will indicate trends in the industry.
2. Conduct a quarterly commercial fishing survey instead of an annual survey in an attempt to provide more accurate data.

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APPENDICES

COMMERCIAL FISHERIES SURVEY

1. Do you consider yourself a full-time commercial fisherman?
   Yes_____; No_____

2. Estimate what percentage of your total income comes from commercial fishing. _____%

3. Estimate the number of days you fished commercial gear last year.
   _____ days

4. What commercial gear types did you use last year (check type used)? If more than one gear type was used, estimate the percent of use.

___ Trotlines	_____%	___ Snaglines	_____%
___ Gill Nets	_____%	___ Trammel Nets	_____%
___ Hoop Nets	_____%	___ Slat Baskets	_____%
___ Seines	_____%		

5. Which lakes or bodies of water did you fish last year? Estimate the percent of time fished in each body of water.

	Waters Fished	Percent of Time
(a)	_____	_____%
(b)	_____	_____%
(c)	_____	_____%
(d)	_____	_____%
(e)	_____	_____%

6. Estimate the weight by species of the fish you harvested last year.

(a) Catfish _____ pounds
(b) Buffalo Fish _____ pounds
(c) Paddlefish (spoonbill) _____ pounds
(d) Drum _____ pounds
(e) Carp _____ pounds
(f) Suckers _____ pounds
(g) Other (write in species _____ _____ pounds

7. How did you dispose of the fish you harvested?

Personal consumption only - did not sell or trade catch _____%
Estimate the percent of catch sold to the following:

Consumer	_____%	Grocery Stores	_____%
Restaurants	_____%	Fish Markets	_____%

Tennessee Commercial Fishing

Licenses

	Resident	Resident Helper	Non Resident	Non Resident Helper
Commercial Fishing	$50	$50	$500	$500

Non-Resident Licenses - Tennessee does not offer non-resident commercial fishing licenses to residents of states which do not permit the sale of non-resident licenses to residents of Tennessee.

COMMERCIAL FISHING

Commercial Fisherman - A commercial fisherman is any person who takes or who aids and assists another person in taking fish or other aquatic life from any of the waters, lakes, streams or ponds of this state for pay or for the purpose of sale, barter or exchange. Any person fishing with commercial fishing gear shall be deemed to be a commercial fisherman within the meaning of this definition. All persons using fishing tackle or fishing gear other than that permitted to be used by a person having or holding a sport fishing license shall likewise be deemed and considered a commercial fisherman within the meaning of this definition.

Commercial Fisherman's Helper - A commercial fisherman's helper is defined as any person who aids and assists another person in taking fish or other aquatic life from any of the waters, lakes, streams, or ponds of this state for pay or for the purpose of sale, barter, or exchange. A helper's license is issued in the commercial fisherman's name, with the term "helper" typed on the face of the license. The term "helper" allows this license to be transferred from one employee to another. The helper must work in the boat with the commercial fisherman whose name is on the helper's license.

FISHES WHICH MAY BE TAKEN

All fish not classified as game fish, and the yellow bass, also called striped jack (*Morone mississippiensis*) may be taken and sold commercially. In addition, both the white and black crappie may be taken and sold commercially from Reelfoot Lake in accordance with regulations proclaimed by the Wildlife Resources Commission.

Fish classified as endangered, threatened, or in need of management as proclaimed by the Wildlife Resources Commission may not be taken. These include: lake sturgeon, pallid sturgeon, alligator gar, blue sucker, highfin carpsucker, harelip sucker, blackfin sucker, and alligator snapping turtle.

No catfish less than eight (8) inches in length may be kept alive.

COMMERCIAL FISHING WATERS OPEN

REFUGES

Special regulations on commercial fishing may apply to federal refuges and other areas. Contact the appropriate federal authority for specific regulations for these areas.

Commercial fishing is prohibited within embayments and subimpoundments from October 15 to February 1 of the succeeding year of the following refuges: Hiwassee Island, Paint Rock, Henderson Island and Lock 5. Commercial fishing is permitted while on the main river channels passing through these refuges.

Commercial fishing is prohibited within the following refuges at anytime: Kingston, Pardue Pond, Dyson Ditch and Bards Creek.

Rivers ("River" means that body of water confirmed within the identifiable banks. At high river stage, oxbows, sloughs, and backwaters accessible by boat from the river are open to commercial fishing, but are considered private water and may be fished only with permission of landowner).

1. CLINCH - Fishing authorized only downstream from Melton Hill Dam. Gill and trammel nets prohibited.
2. CUMBERLAND - as listed in Reservoir section.
3. EMORY - open from the Harriman Bridge downstream. Gill and trammel nets prohibited.
4. FORKED DEER - Except that portion of the Middle Fork lying within the boundaries of the Chickasaw National Wildlife Refuge.
5. FRENCH BROAD
6. HATCHIE
7. HIWASSEE - fishing authorized only downstream from U.S. 11 Bridge (Charleston).
8. HOLSTON
9. LOOSAHATCHIE - open only downstream from the new Raleigh-Millington Road Bridge.
10. MISSISSIPPI RIVER - except that portion from the Mississippi-Tennessee line upstream to Mississippi River Mile 745, marked by the upper or northern tip of Hickman Bar (which is closed). This closure includes McKellar Lake and Wolf River embayment. Heathright Pocket, Wardlow's Pocket and Wardlow's Pocket Chute (except those portions lying within the boundaries of the Chickasaw National Wildlife Refuge), Cold Creek, Cold Creek Chute, lying within the boundaries of Anderson Tully WMA in Lauderdale County are open; all other ponds, lakes, arms, sloughs, bayous, and pockets within the WMA are closed. Portions of the Mississippi River are closed due to the contamination of fish.
11. NOLICHUCKY
12. OBION
13. TENNESSEE - as listed in Reservoir section.
14. WOLF - only the section from Germantown Bridge upstream is open, except the section upstream of Bateman Bridge in Fayette County is open for trotlines only. Closed due to chemical pollution from Germantown Bridge downstream to Mississippi River.

RESERVOIRS 2.

1. BARKLEY (Tennessee portion) - 15,900 acres
   All commercial fishing gear except slat baskets and trotlines is prohibited in all creeks from 4 a.m. to 9 p.m. during the months of April and May; all commercial fishing gear is permitted in all creeks from 9 p.m. to 4 a.m. daily during the months of April and May, except that whip sets (the driving of fish into trammel and gill nets by the use of noise and disturbing the water) are not permitted in any creeks which have operating commercial docks.
2. CHEATHAM - 7,450 acres
3. CHEROKEE - 30,200 acres
   Open to trotlines, slat baskets, fyke nets and hoop nets year-round. Trammel and gill nets and snaglines prohibited.
4. CHICKAMAUGA - 34,500 acres
5. DOUGLAS - 30,400 acres
6. FORT LOUDON - 14,600 acres
   The possession of all species of catfish taken by commercial methods from Fort Loudon Dam upstream to the confluence of the French Broad and Holston rivers is prohibited due to contamination.
7. GUNTERSVILLE (Tennessee portion) - 2,170 acres
8. KENTUCKY (Tennessee portion) - 108,040 acres
   Commercial fishing gear and sport fishing trotlines prohibited in the New Johnsonville Steamplant Harbor and within 50 yards of the Danville Railroad Bridge dikes. All commercial fishing gear except slat baskets and trotlines is prohibited in all creeks from 4 a.m. to 9 p.m. during the months of April and May; all commercial fishing gear is permitted in all creeks from 9 p.m. to 4 a.m. daily during the months of April and May, except that whip sets (the driving of fish into trammel and gill nets by the use of noise and disturbing the water) are not permitted in any creeks which have operating commercial docks. Entanglement type commercial fishing gear is prohibited from Robinson Creek upstream to Pickwick Dam, a distance of approximately 1,833 yards, except entanglement gear is permitted from the mouth of Robinson Creek upstream to the upper concrete barge tie-off on the north side of the river from one hour after official sunset to one hour before official sunrise during the period November 1 to April 1 each year. All commercial fishing gear is prohibited within 1,000 yards of the dam.
9. NICKAJACK - 10,800 acres
10. OLD HICKORY - 22,500 acres
    a. Trammel and gill nets prohibited from Highway 231 upstream to the Cordell Hull Dam and including the Caney Fork River.
    b. Trammel and gill nets prohibited from Highway 109 upstream to 231 except fishing of legal entanglement nets by whipset or trammeling method are permitted by contract with the Tennessee Wildlife Resources Agency. For information on obtaining a contract, write TWRA Region II Office at P.O. Box 40747, Nashville, TN 37204 or phone 1-800-624-7406.
11. PICKWICK (Tennessee portion) - 6,160 acres.
12. REELFOOT - 10,000 acres
    a. Commercial fishing for crappie will be conducted only under contract provisions from October 15 through March 15, annually.
    b. The taking of grass carp (*C. idella*) is prohibited.
    c. Trammel nets prohibited in all waters except from south and west of Willow Bar during the duck season.
    d. Trammel, gill, hoop, and fyke nets legal June 16 through April 14 only, except as noted in (c.) above.
13. WATTS BAR - 38,600 acres
    Trammel and gill nets prohibited.
14. JOHN SEVIER - 811 acres
15. DAVY CROCKETT - 797 acres

Commercial Fishing Gear Permitted

Legal gear types are trotlines, snaglines, slat baskets, hoop nets, fyke nets, trammel nets, gill nets, seines, cast nets and turtle traps.

Hoop nets, fyke nets, trap nets, and pound nets with a mesh size of one (1) inch or smaller on the square may only be fished during the months of October, November, December, January, February, March and April, except Reelfoot Lake, which has separate regulations proclaimed by the Tennessee Wildlife Resources Commission, and the Mississippi River, where they may be fished year-round.

1. **CAST NET**
   A cast net is defined as a net having a maximum radius of ten (10) feet and a mesh size (square measure) of not less than one-fourth (1/4) inch and not greater than one (1) inch..
2. **FISH SEINE**
   A fish seine consists of a float and lead line to which netting is attached. The netting of the seine shall be constructed of twine not smaller than Number 7 nylon or synthetic fiber or Number 9 cotton or linen. The mesh size of seines shall be three (3) inches or larger on the square. Seines must be constantly attended, and may not be fished in a stationary manner. These seines may be fished in private waters and in waters which are replenished by overflows from the Mississippi, Tennessee, Obion, Hatchie, Wolf, Loosahatchie, and Forked Deer rivers, but which, during the dry season of the year, have no outlet to these rivers. Fish seines as defined here may also be used in the dewatering areas of Kentucky Lake.

3. **FYKE NET**
A fyke net, also known as a wing net, is a hoop net to which as many as three (3) wings or leads may be attached. Trap nets or pound nets which have rectangular or box shaped traps shall also be legal by this definition. The wings or leads are equipped with floats and sinkers, and the webbing of the wings shall be constructed of twine not smaller than Number 7 in nylon or Number 9 in cotton or linen. The maximum length of each wing is 50 feet. The legal mesh size of fyke nets and wings or leads is one (1) inch or smaller or three (3) inches or larger on the square. The definition applies to all except Reelfoot Lake.

4. **GILL NET**
A gill net is defined as a single net attached to float and lead lines with a minimum mesh size of four (4) inches on the square. The maximum length of a gill net is three hundred (300) yards. Gill nets must be fished in a stationary manner except in the Mississippi River.

5. **TRAMMEL NET**
A trammel net is defined as a net having three (3) webs (nets) hung to a single top (float) and bottom (lead) line. The two outside webs are called walling, and the inside web is called webbing. The inside webbing shall have a mesh size of not less than three (3) inches on the square and the outside walling shall have a mesh size of not less than four (4) inches on the square. The maximum mesh size of the outside walling shall consist of vertical ties or hobbles on each side of the webbing at six (6) foot intervals along the float and lead line. Maximum length of a trammel net is three hundred (300) yards. Trammel nets must be fished in a stationary manner except in the Mississippi River.

6. **HOOP NET**
A barrel shaped net made of synthetic cotton, linen, or nylon and supported by hoops. A hoop net is also known as a barrel net, set net, funnel net, and trap net. One or more throats are attached inside the hoop structure. Legal mesh size of hoop nets is one (1) inch or smaller or three (3) inches or larger on the square. This definition applies to all except Reelfoot Lake and the Mississippi River.

7. **SLAT BASKET**
A slat basket is defined as a device used for taking nongame or commercial fish only. Slat baskets may have only one outside funnel opening, and may be made of wood, plastic, or cane slats or splits which are placed lengthwise and so constructed that there must be a minimum of four openings in the catching area, each being at least 1 1/2" wide and 6" long.

8. **SNAG LINE**
A main line with drop lines to which single hooks are attached. One or more of such drops shall be closer than 24 inches apart.

9. **TROTLINE**
A main line with drop lines to which single hooks are attached and baited in order to catch fish. Such drops must not be closer than 24 inches.

10. **TURTLE TRAPS**
A turtle trap is defined as a trap made of linen or cotton netting, wood or cane slats or strips, wire, or other similar materials with a minimum mesh size of three (3) inches on the square. Such traps must be constructed in a way as to permit the escape of fish through the three (3) inch openings. Turtle traps as defined herein may be used in all commercial waters.

Regulations Concerning Use of Commercial Gear

No commercial fishing gear may be fished within 100 yards of the mouth of any river, creek, slough, inlet, or outlet, nor shall any commercial fishing gear be set so as to extend more than three-quarters (3/4) across any stream, river, chute, or embayment.

Commercial fishing gear is prohibited within 1,000 yards downstream of any TVA or Corps of Engineers Dam or within 300 yards of any commercial boat dock or resort. For enforcement purposes, wingwalls and lock walls are considered to be part of the "dam", and measurements will be made from their downstream end.

Gill nets, trammel nets, trotlines, and snag lines must be run at least once every 24 hour period.

Each piece of commercial fishing gear, including trotlines fished commercially, shall be marked with a tag securely fastened to the head end of the line or net or to the float. The tag should measure 1 inch by 3 inches or larger. The name and current license number of the commercial fisherman using the gear must be on the tag. Tags may be made from metal, plastic, or other non-degradable material. The commercial fisherman must furnish the tags.

COMMERCIAL FISHERMEN ARE REQUIRED, UPON REQUEST, TO SUBMIT REPORTS TO THE TENNESSEE WILDLIFE RESOURCES AGENCY ON FORMS PROVIDED.

TENNESSEE WILDLIFE RESOURCES AGENCY

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